

ABSTRACT OF THE DISCLOSURE

An installation for increasing the usable scanning range along the axial direction of a light source. The installation includes a linear light source and a light-channeling panel. The linear light source has a light axis whose brightness near the mid-portion is higher than the brightness level on either side. The light-channeling panel is adjacent to the linear light source and is capable of concentrating more light in the end sections rather than the mid-portion of the light axis. The light-channeling panel is made from a plurality of panels, each made from materials having different light transparencies. The light transparency of the light-channeling panel near the central section of the light axis is lower than the light transparency at the end sections of the light axis. Hence, after light from the linear light source has passed through the light-channeling panel, a band of light having a more homogenous brightness level than the linear light source is produced.